HES 2000-IP-001143U1D3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	B. Raghava Reddy;) ·	
	Larry S. Eoff; J. Michael Wilson;)	
	Donald L. Whitfill;)	
. •	Denise Berryhill;) Art Unit:	Unknown
	Russell M. Fitzgerald;		
	Thomas Becker and)	
	Jimmie D. Weaver) '	
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

The following documents are known to Applicants or Applicants' attorneys and are submitted for the Examiner to consider in the above-captioned application.

U.S. PATENTS

- U.S. Patent No. 2,562,866 issued on July 31, 1951 to Stewart S. Kurtz, Jr. et al.
- U.S. Patent No. 2,730,497 issued on January 10, 1956 to Tzeng Jiueq Suen et al.
- U.S. Patent No. 3,976,135 issued on August 24, 1976 to Buddy W. Anderson.
- U.S. Patent No. 4,042,032 issued August 16, 1977 to Buddy W. Anderson et al.
- U.S. Patent No. 4,105,618 issued on August 8, 1978 to Thomas R. Sifferman et al.
- U.S. Patent No. 4,579,668 issued on April 1, 1986 to Joseph U. Messenger.

- U.S. Patent No. 4,671,883 issued on June 9, 1987 to David L. Connell et al.
- U.S. Patent No. 4,784,223 issued on November 15, 1988 to Robert N. Worrall et al.
- U.S. Patent No. 4,821,802 issued April 18, 1989 to Clifford N. Meltz et al.
- U.S. Patent No. 4,964,465 issued October 23, 1990 to Billy W. Surles.
- U.S. Patent No. 5,094,762 issued on March 10, 1992 to Shawqui M. Lahalih.
- U.S. Patent No. 5,458,195 issued on October 17, 1995 to Patty L. Totten et al.
- U.S. Patent No. 5,569,324 issued October 29, 1996 to Patty L. Totten et al.
- U.S. Patent No. 5,578,672 issued November 26, 1996 to Gary W. Beall et al.
- U.S. Patent No. 5,911,282 issued June 15, 1999 to David D. Onan et al.
- U.S. Patent No. 5,913,364 issued June 22, 1999 to Ronald E. Sweatman.
- U.S. Patent No. 5,945,387 issued August 31, 1999 to Jiten Chatterji et al.
- U.S. Patent No. 5,968,879 issued October 19, 1999 to David D. Onan et al.
- U.S. Patent No. 6,012,524 issued January 11, 2000 to Jiten Chatterji et al.
- U.S. Patent No. 6,059,035 issued May 9, 2000 to Jiten Chatterii et al.
- U.S. Patent No. 6,124,246 issued September 26, 2000 to James E. Heathman et al.
- U.S. Patent No. 6,152,227 issued November 28, 2000 to Jimmie B. Lawson et al.
- U.S. Patent No. 6,167,967 B1 issued January 2, 2001 to Ronald E. Sweatman.
- U.S. Patent No. 6,209,646 B1 issued April 3, 2001 to Baireddy R. Reddy et al.
- U.S. Patent No. 6,258,757 B1 issued July 10, 2001 to Ronald E. Sweatman et al.
- U.S. Patent No. 6,271,181 B1 issued August 7, 2001 to Jiten Chatterji et al.
- U.S. Patent No. 6,328,106 B1 issued December 11, 2001 to James E. Griffith et al.
- U.S. Patent No. 6,401,817 B1 issued June 11, 2002 to James E. Griffith et al.
- U.S. Patent No. 2,356,302 issued August 22, 1944 to Thomas S. Chapman.

- U.S. Patent No. 2,649,159 issued August 18, 1953 to Jackson S. Boyer.
- U.S. Patent No. 3,087,544 issued April 30, 1963 to J.P. Forsman.
- U.S. Patent No. 3,126,959 issued March 31, 1964 to J.E. Ortloff.
- U.S. Patent No. 3,935,910 issued February 3, 1976 to Claude François Gaudy et al.
- U.S. Patent No. 4,199,484 issued April 22, 1980 to Joseph R. Murphey.
- U.S. Patent No. 4,301,016 issued November 17, 1981 to David B. Carriere et al.
- U.S. Patent No. 4,649,998 issued March 17, 1987 to Robert H. Friedman.
- U.S. Patent No. 4,722,397 issued February 2, 1988 to Robert D. Sydansk et al.
- U.S. Patent No. 4,760,882 issued August 2, 1988 to Lucille H. Novak.
- U.S. Patent No. 4,811,789 issued March 14, 1989 to Alfred R. Jennings, Jr. et al.
- U.S. Patent No. 5,295,541 issued March 22, 1994 to Ricky C. Ng et al.
- U.S. Patent No. 5,558,171 issued September 24, 1996 to Raymond E. McGlothlin et al.
- U.S. Patent No. 5,711,383 issued January 27, 1998 to Dralen T. Terry et al.
- U.S. Patent No. 5,783,527 issued July 21, 1998 to James W. Dobson, Jr.
- U.S. Patent No. 5,866,516 issued February 2, 1999 to C. Richard Costin.
- U.S. Patent No. 6,107,256 issued August 22, 2000 to Rebecca G. Udarbe et al.
- U.S. Patent No. 6,482,776 B1 issued November 19, 2002 to Gary F. Matz et al.
- U.S. Patent No. 6,508,306 B1 issued January 21, 2003 to B. Raghava Reddy et al.
- U.S. Patent No. 6,176,315 B1 issued January 23, 2001 to Baireddy R. Reddy et al.

FOREIGN DOCUMENTS

International Publication Number WO 01/98626 A1 published on December 27, 2001. International Publication Number WO 01/98627 A1 published on December 27, 2001. International Publication Number WO 02/04784 A2 published on January 17, 2002.

European Patent Application Number EP 0 997 515 A1 published May 3, 2000.

OTHER MATERIAL

Abstract No. XP-002255423 entitled "Stabilizing reagents for drilling solution comprise derivative of polyethyleneimine which provide stability in presence of minerals and raise temperatures," by Gembitskii, P.A. et al.

Abstract No. XP-002255422 entitled "Lost circulation zone polymer plugging – uses hardener with adduct of polyethyleneimine and copper sulphate taken in specified proportion," by Abdurakhim, N. et al.

Copies of the aforementioned references and Form PTO-1449 are submitted herewith.

Respectfully submitted,

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ATTORNEY FOR APPLICANTS

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INITIAL		Document No.	Date	Name	Clas		Appro	prîate
	AA	2,562,866	07/31/51	Kurtz, Jr. et al.	260			
	AB	2,730,497	01/10/56	Suen et al.	252			
	AC	3,976,135	08/24/76	Anderson	166			
	AD	4,042,032	08/16/77	Anderson et al.	166			
•	ΑE	4,105,618	08/08/78	Sifferman et al.	260	33.6		
	AF	4,579,668	04/01/86	Messenger	252	8.5		
1	AG	4,671,883	06/09/87	Connell et al.	252	8.515		
· .	AH	4,784,223	11/15/88	Worrall et al.	166	287		
	ΑI	4,821,802	04/18/89	Meltz et al.	166	270		
	AJ	4,964,465	10/23/90	Surles	166	295		
	AK	5,094,762	03/10/92	Lahalih	507	117		
		<u> </u>	FORE	IGN PATENT DOCUMENTS		- P		
		Document No.	Date	Country	Clas	s Subclass	<u>Trans</u> Yes	lation No
	AL	WO 01/98626 A1	12/27/01	PCT	E21B	33/13	X	
· · · · · ·	AM	WO 01/98627 Al	12/27/01	PCT	E21B		. X	
	AN	WO 02/04784 A2	01/17/02	PCT	E21B		X	
	AO	EP 0 997 515 A1.	05/03/00	Europe	Со9К	7/02	Х	*• <u> </u>
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	AR Abstract No. XP-002255423 entitled "Stabilizing reagents for drilling solution comprise derivative of polyethyleneimine which provide stability in presence of minerals and raise temperatures," by							
,		Gembitskii	, P.A. et	al.				
	AS	plugging -	uses hard	55422 entitled "Lost lener with adduct of	polyet	hyleneimine	and cor	per
		sulphate to	aken in sp	ecified proportion,"	by Ab	odurakhim, N.	et al.	•
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FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS				ATTY. DOCKET NO. SERIAL NO. 2000-IP-001143U1D3 Unknown			_			
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT			APPLICANT B. Raghava Reddy et al.							
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INITIAL		Document No.	Date	Name	Clas	s Subclass	Appro	priate		
	AA	5,458,195	10/17/95	Totten et al.	166	293				
	AB	5,569,324	10/29/96	Totten et al.	166	696				
	AC	5,578,672	11/26/96	Beall et al.	524	446				
	AD	5,911,282	06/15/99	Onan et al.	175	72				
	AE	5,913,364	06/22/99	Sweatman	166	281				
	AF	5,945,387	08/31/99	Chatterji et al.	507	224				
	AG	5,968,879	10/19/99	Onan et al.	507	202				
	AH	6,012,524	01/11/00	Chatterji et al.	166	295	1	· ·		
	ΑI	6,059,035	05/09/00	Chatterji et al.	166	293				
	АĴ	6,124,246	09/26/00	Heathman et al.	507	219	 			
	AK	6,152,227	11/28/00	Lawson et al.	166	293	† · · · · ·			
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INITIAL		Document No.	Date	Name	Class		Appro	priate
	AA	6,167,967 B1	01/02/01	Sweatman	. 166	281		
	AB	6,209,646 B1	04/03/01	Reddy et al.	166	300		
	AC	6,258,757 B1	07/10/01	Sweatman et al.	507	219		
	AD	6,271,181 B1	08/7/01	Chatterji et al.	507	· 219		
	AE	6,328,106 B1	12/11/01	Griffith et al.	166	295		
	AF	6,401,817 B1	06/11/02	Griffith et al.	166	295		
	AG	2,356,302	08/22/44	Chapman	252	8.5		
	AH	2,649,159	08/18/53	Boyer	166	22		
	AΊ	3,087,544	04/30/63	Forsman	1.66	295	· .	
0.0	AJ	3,126,959	03/31/64	Ortloff	166	287		
	AK	3,935,910	02/03/76	Gaudy et al.	175	17		· · ·
			FORE	IGN PATENT DOCUMENTS				
		Document No.	Date	Country	Class	Subclass	Trans Yes	lation No
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Document No. Date Name Class Subclass Appropriate				U	S. PATENT DOCUMENTS					
Name									-	
AA 4,199,484 04/22/80 Murphey 260 13 AB 4,301,016 11/07/81 Carriere et al. 252 8.5 AC 4,649,998 03/17/87 Friedman 166 294 AD 4,722,397 02/02/98 Sydansk et al. 166 295 AE 4,760,882 08/02/88 Novak 166 295 AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AII 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Translation Yes No AL AM AN AN AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AR AS AS	EXAMINER					`.				
AB 4,301,016 11/07/81 Carriere et al. 252 8.5 AC 4,649,998 03/17/87 Friedman 166 294 AD 4,722,397 02/02/98 Sydansk et al. 166 295 AE 4,760,882 08/02/88 Novak 166 295 AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Translation Yes No AL AM AN AN AN AN AN AN AN AN AN	INITIAL							Appro	priate	
AC 4,649,998 03/17/87 Friedman 166 294 AD 4,722,397 02/02/98 Sydansk et al. 166 295 AE 4,760,882 08/02/88 Novak 166 295 AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Yes No AL AM AN AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AR AS AT			·	v.			1			
AD 4,722,397 02/02/98 Sydansk et al. 166 295 AE 4,760,882 08/02/88 Novak 166 295 AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Translation Yes No AL AM AN AN AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AR AS AT		AB			·		1			
AE 4,760,882 08/02/88 Novak 166 295 AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Translation Yes No AL AM AN		AC								
AF 4,811,789 03/14/89 Jennings, Jr. et al. 166 276 AG 5,295,541 03/22/94 Ng 166 277 AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Yes No AL AM AN		AD		1						
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AH 5,558,171 09/24/96 McGlothlin et al. 175 64 AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Yes No AL AM AN		AF			Jennings, Jr. et al.	166		,	•	
AI 5,711,383 01/27/98 Terry et al. 175 72 AJ 5,783,527 07/21/98 Dobson, Jr. et al. 507 269 AK 5,866,516 02/02/99 Costin 507 103 FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Translation Yes No AL AM AN AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AS AS AT AT		AG				166	277			
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AK		ΑI	5,711,383	01/27/98	Terry et al.	175	72			
FOREIGN PATENT DOCUMENTS Document No. Date Country Class Subclass Yes No		AJ	5,783,527	07/21/98	Dobson, Jr. et al.	507	269			
Document No. Date Country Class Subclass Translation Yes No AL AM AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AR AS AS AT		AK	5,866,516	02/02/99	Costin	507	103			
Document No. Date Country Class Subclass Yes No AL AM AN AO AP OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AS AT				FORE	IGN PATENT DOCUMENTS	,	*			
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INITIAL		Document No.	Date	Name	Class		Appro	priate		
•	AA	6,107,256	08/22/00		507	120				
	AB	6,482,776 B1	11/19/02	Matz et al.	507	120				
	AC	6,508,306 B1	01/21/03	-	166	295				
	AD	6,176,315 B1	01/23/01	Reddy et al.	166	. 295				
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